# **DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/Ala Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-017582 Address: 333 Burma Road **Date Inspected:** 12-Oct-2010

City: Oakland, CA 94607

OSM Arrival Time: 1900 **Project Name:** SAS Superstructure **OSM Departure Time:** 700 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** See below **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** Tower and OBG Components

## **Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance Inspector (QA Inspector) George Goulet was present during the times noted above for observations relative to the work being performed.

#### Bay 11

This QA Inspector randomly observed the following work in progress in Bay 11:

SMAW tack welding of weld joints BK004A6-021-061, 063, 065, 070, 076, 078, 080, 082 located on PCMK BK004A-023. Welder was identified as 054460. QC was identified as ZPMC CWI Xu Le Feng (QC1). Assisting QC1 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Zhao Mao Mao (QCA1), who was not a CWI. Welding variables recorded by QCA1 appeared to comply with WPS-B-P-2113.

SMAW tack welding of weld joints BK004A8-021-061, 063, 065, 070, 076, 078, 080, 082 located on PCMK BK004A-023. Welder was identified as 040724. QC was identified as QC1. Assisting QC1 at this location and appearing to be monitoring the welding and recording data was QCA1, who was not a CWI. Welding variables recorded by QCA1 appeared to comply with WPS-B-P-2113.

#### Bay 10

This QA Inspector randomly observed no welding related work in progress in Bay 10.

# **OBG** Trial Assembly Area

This QA Inspector randomly observed the following work in progress in the OBG Trial Assembly Area:

# WELDING INSPECTION REPORT

(Continued Page 2 of 3)

SMAW layered repair welding of the ends of 3 deck plate I-rib stiffeners located on the east end of PCMK 10CE, north side, DP703. Welder was identified as 040581. QC was identified as ZPMC CWI Shi Lei (QC2). Assisting QC2 at this location and appearing to be monitoring the welding and recording data was ZPMC QC Wang Li Yang (QCA2), who was not a CWI. Welding variables recorded by QCA2 appeared to comply with WPS-345-SMAW-3G(3F)-repair-1 as listed on ZPMC Weld Repair Report B-WR15284 as presented to this QA Inspector and verbalized by QC2 to be repairs resulting from visual testing (VT). The 3 I-ribs were identified as RS65EA on B-WR15284.

SMAW layered repair welding of the ends of 3 deck plate I-rib stiffeners located on the east end of PCMK 10CE, south side, DP716. Welders were identified as 040484, 500363. QC was identified as QC2. Assisting QC2 at this location and appearing to be monitoring the welding and recording data was QCA2, who was not a CWI. Welding variables recorded by QCA2 appeared to comply with WPS-345-SMAW-3G(3F)-repair-1 as listed on ZPMC Weld Repair Report B-WR15284 as presented to this QA Inspector and verbalized by QC2 to be repairs resulting from visual testing (VT). The 3 I-ribs were identified as RS79B on B-WR15284.

#### Heavy Dock

This QA Inspector randomly observed the following on the Heavy Dock:

All 4 towers, lift 3 were connected and positioned vertically on a base pedestal at end of the Heavy Dock. All 4 towers, lift 4 were positioned on a base separate pedestal at end of the Heavy Dock. The ZPMC 4000 ton was moored to the end of the Heavy Dock and rigged to the top of the joined lift's 4. A light rain was falling and ZPMC personnel were present, but not working and left the area at approximately 2140 hours. The ZPMC 1300 ton floating crane was moored to the Heavy Dock and sitting idle.

## Bay 11

This QA Inspector proceeded to Bay 11 in response to ZPMC Inspection Notification #06245 for magnetic particle testing (MT) inspection of the following:

This QA Inspector performed random visual testing (VT) and then MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The member is identified as follows: BK004A1-053. The weld designations reviewed were: 043, 044.

No apparent indications were observed.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

### **Summary of Conversations:**

As noted above.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or

# WELDING INSPECTION REPORT

(Continued Page 3 of 3)

remedial efforts please contact Micheal Ng, 159-2184-5703, who represents the Office of Structural Materials for your project.

<b>Inspected By:</b>	Goulet,George	Quality Assurance Inspector
Reviewed By:	Clifford,William	QA Reviewer